QUESTION #12

ATTACHMENT #9

EPA Request for Information
Magellan Pipeline Company, L.P.
Mile Post 110 #3-8" and #5-12" Pipeline Strikes
Nemaha County, Nebraska

QUESTION 12:

Free phase hydrocarbons (FPH) released from the two pipelines impacted a grass swale (a portion of which is a wetland), an erosional feature drainage ditch, and an unnamed tributary of Jarvis Creek. Based on field observations, the released FPH was contained at Underflow Dam #4 on the unnamed tributary of Jarvis Creek (see Figure 1).

Swale

a. A portion of the released FPH flowed overland from the release points in a southwesterly direction and impacted a grass swale designed to control run-off/erosion in the agricultural field. The southern portion of the grass swale is a palustrine scrub-shrub (PSS) wetland (0.03 acre delineated) and is identified as W-1 on the attached Figure 1.
b. Flow direction in the grass swale is to the south. Based on field observations, there was no standing water present in the swale the morning following the release; however, a few isolated pockets of FPH were noted at this time.
c. Based on field observations, it appears no water was present in the swale at the time of the release. The swale is approximately 30 feet wide and meanders through the cultivated agricultural field for approximately ¼-mile before discharging to the erosional feature drainage ditch.
d. To date, approximately 172 barrels of FPH have been recovered from the unnamed tributary of Jarvis Creek.
e. The swale is used for agricultural purposes.
f. When applicable, water flows in the swale and is discharged to the erosional feature drainage ditch, which empties into the unnamed tributary of Jarvis Creek. Jarvis Creek empties into the Little Nemaha River which empties into the Missouri River approximately 1.5 miles south of Nemaha, Nebraska (see Figure 2).

Erosional Feature Drainage Ditch

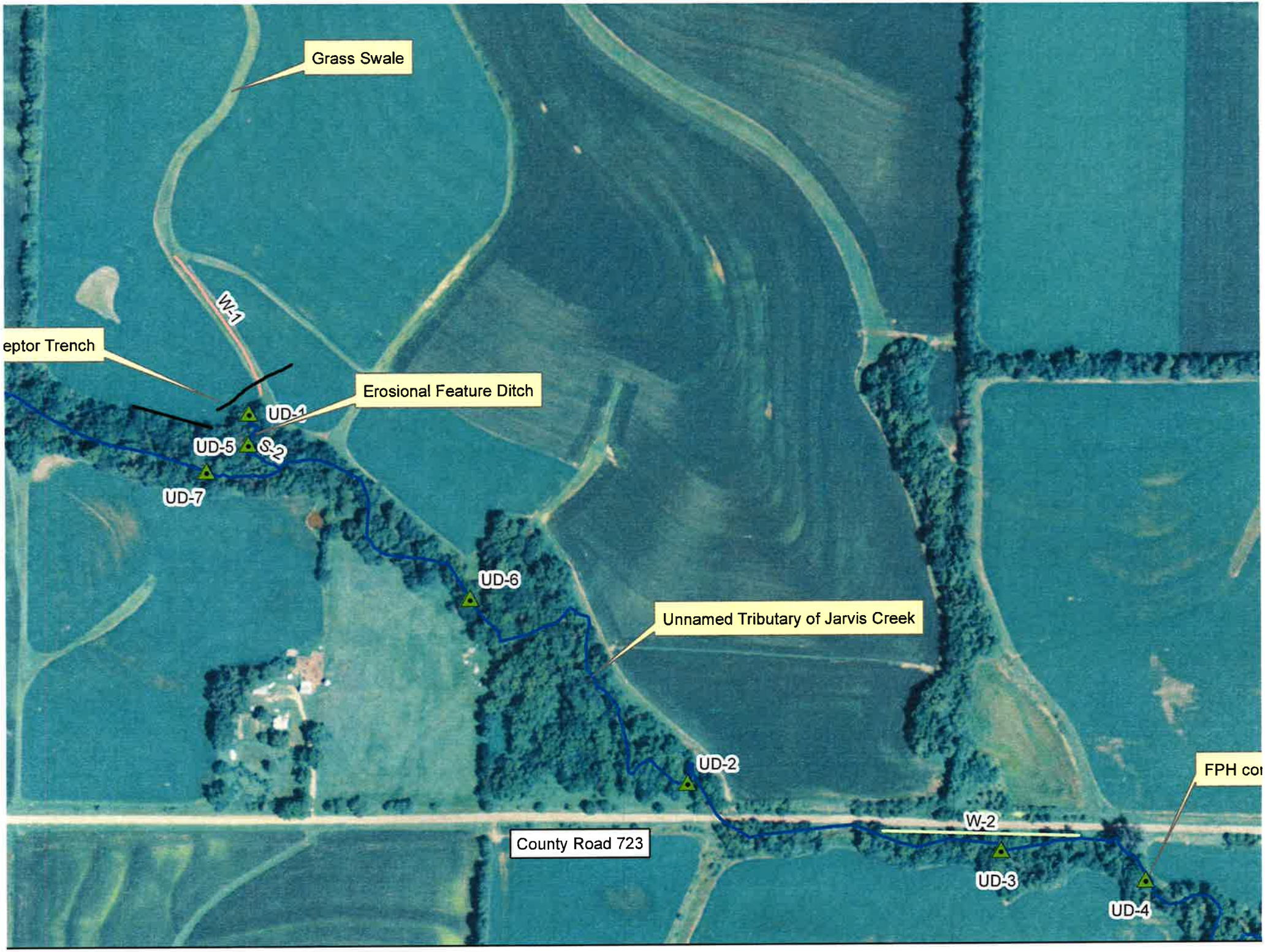
a. A portion of the released FPH flowed in an erosional feature drainage ditch prior to reaching the unnamed tributary. Impacted soils and sediments in the upper portion of the ditch were excavated during the release response. The drainage ditch (287 feet delineated) is highly eroded and flows to the west and south from the swale to the unnamed tributary. The location of the erosional feature drainage ditch is illustrated on Figure 1 and is identified as S-2.
b. Flow direction in the erosional feature drainage ditch is to the west and south. Flow in the drainage ditch is intermittent. Based on field observations, there was a minimal volume of water present in the drainage ditch the morning following the release.
c. Based on field observations, it appears a small volume of water was present in the drainage ditch at the time of the discharge. Measurements of the ditch were made in the days following the release. The ditch averaged approximately 3 feet wide and 0.5 foot

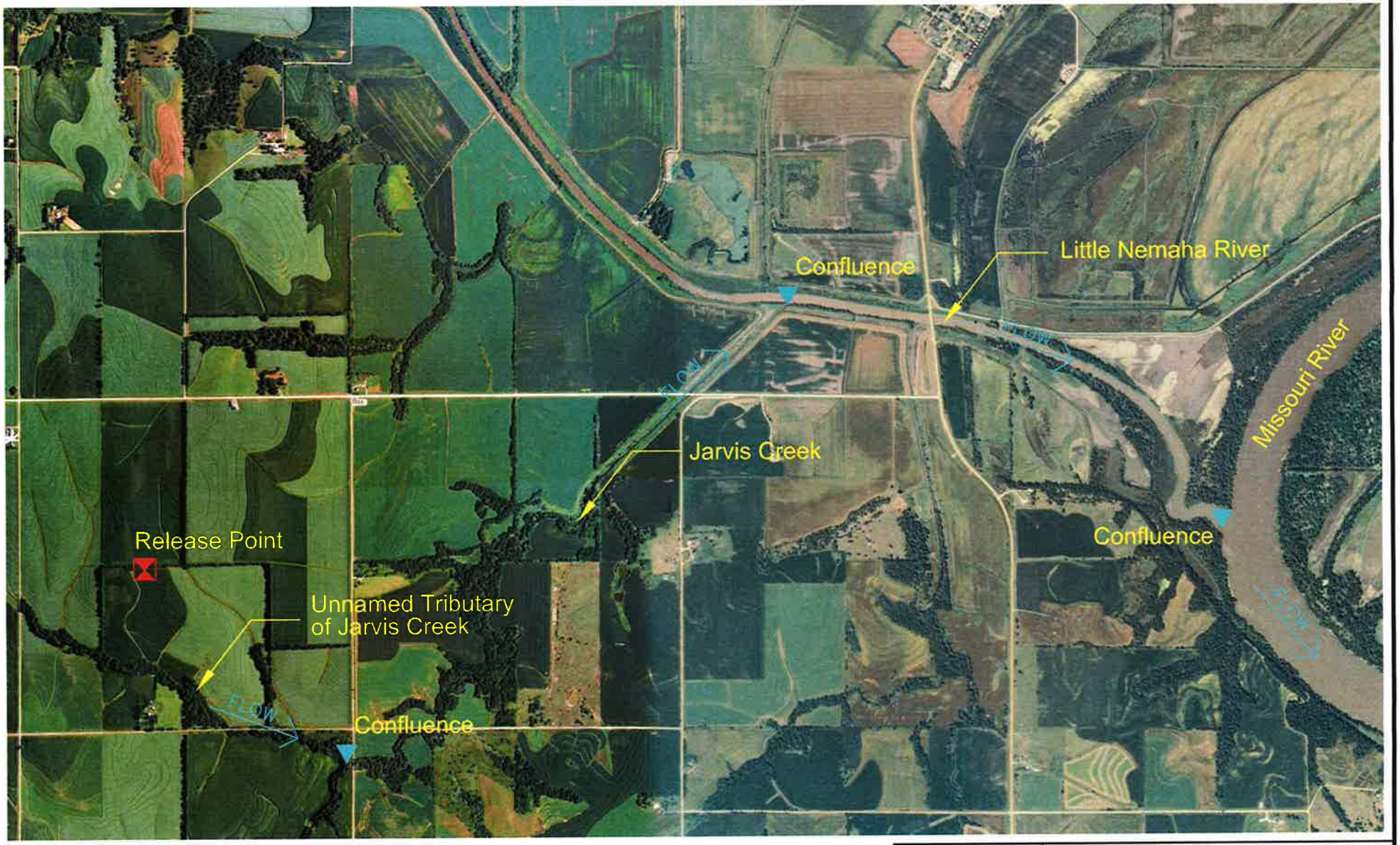
deep from the ordinary high water mark (OHWM) with banks averaging approximately 8 feet high. The substrate of this channel consisted largely of silt.

d. To date, approximately 172 barrels of FPH have been recovered from the unnamed tributary of Jarvis Creek.
e. Run-off water from the agricultural field flows into the erosional feature drainage ditch before emptying into the unnamed tributary of Jarvis Creek.
f. When applicable, water flows in the drainage ditch and is discharged to the unnamed tributary of Jarvis Creek. Jarvis Creek empties into the Little Nemaha River which empties into the Missouri River approximately 1.5 miles south of Nemaha, Nebraska (see Figure 2).

Unnamed Tributary of Jarvis Creek

a. A portion of the released FPH flowed into an unnamed tributary of Jarvis Creek. The tributary (3,823 feet delineated) is an unnamed intermittent stream with deeply incised banks that flows south and east. The location of the unnamed tributary is illustrated on Figure 1 and is identified as S-1.
b. Flow direction in the unnamed tributary is to the south and east. The unnamed tributary is an intermittently flowing stream. Water was present in the unnamed tributary and flowing at the time of the release; however, the flow velocity was not calculated.
c. Based on field observations, water was present in the unnamed tributary at the time of the release. Measurements of the unnamed tributary were made in the days following the release. The unnamed tributary averaged approximately 6 feet wide and 1 foot deep from the OHWM with banks averaging approximately 20 feet high. The substrate of this stream consisted largely of silt.
d. To date, approximately 172 barrels of FPH have been recovered from the unnamed tributary of Jarvis Creek.
e. Based on observations made during the release response, it does not appear the unnamed tributary is used for any agricultural purposes (i.e. irrigation).
f. The unnamed tributary flows into Jarvis Creek. Jarvis Creek empties into the Little Nemaha River which empties into the Missouri River approximately 1.5 miles south of Nemaha, Nebraska (see Figure 2).


Grass Swale
W-1
eptor Trench
Erosional Feature Ditch
UD-1
UD-5
S-2
UD-7
UD-6
Unnamed Tributary of Jarvis Creek
UD-2
FPH co
W-2
County Road 723
UD-3
UD-4



NORTH

2,190 0 2,190 4,380

SCALE IN FEET

Burns & McDonnell
SINCE 1898

Figure 2

TRIBUTARY MAP
MAGELLAN PIPELINE
MILE POST 110
NEMAHA, NEBRASKA